



those  
GOOD OL'  
**RADIO**  
magazines

BY JOHN J. NAGLE, K4KJ

*Nostalgia buffs fondly  
recall the "Good Old Days"*

Memories . . . memories . . . Dusty mountains of surplus "one flight up" on radio row; once-familiar names: Gonsett, Jones, Windom, Reinartz, Meissner, Lamb, McMurdo Silver; the sights and sounds of an HRO, an MB-29, a HQ-120, a Super Skyriders; crisp pages in the latest copy of *Radio*, *Amateur Radio Review*, and *The Transmitter*; share these, and

with red covers, some with plain covers, and some with picture covers; a large assortment of *Radio* magazines, also known as the "West Coast QST," and all-too-few issues of *Amateur Radio Defense*. There was a copy of CQ dated April, 1931 (no connection with the present CQ) published for commercial radio operators.

of *Amateur Radio Review* from the early 1930s, both with the NRA eagle on the front cover: "We do our part."

And here were a few *R/9s*. *R/9* was always a first-rate technical magazine. When *R/9* and *Radio* merged in 1936, the result was a really top-notch product, and a worthy competitor in the field.

There was an swl magazine



In addition to the well-known, nationally distributed amateur magazines like *QST* and *RADIO*, there were numerous publications intended for a local audience. *Amateur Radio* was published in New York in the 1920s; it combined with *Radio Relays*, a Boston magazine, in June, 1924. William Halligan, who later founded Hallicrafters, was the editor of *Radio Relays*. *Ye Brass Pounder* (opposite page) was a four-page newspaper style publication produced in New York around 1930. *Midwest Radio* was published in St. Louis in the 1920s for amateurs in the ninth call area (now the tenth call area). *Modern Radio* was published in Connecticut in the early 1930s; *R/9* was published in Southern California between 1933 and 1936 — both were eventually absorbed by *RADIO*.

more, on a nostalgic ramble through the pages of . . . those old radio mags.

Last weekend I was repainting the family room and needed to move the children's old train table out of the corner. At first I could not budge it, but, looking under the table, I saw the problem was several very heavy boxes. "What," I wondered, "has my wife stashed away here?" So I opened them up and was I surprised: they contained *my* collection of old radio magazines!

I couldn't resist a peek. I reached into the nearest box and hauled out old *QSTs*, some

Did you realize that there were two different 73s, neither of which was any relation to the present 73? One issue, dated May, 1932, was published by the United Radio Operator's Association in Portland, Oregon; a commercial operator's magazine. Another 73 was the official publication of the Federation of Radio Clubs of the Southwest ARRL. Seems kind of strange to read an issue of 73 that wholeheartedly supports the League, like a Hatfield going to bat for a McCoy.

I turned up another magazine called *The Transmitter* dated October, 1926, and two issues

called *RADEX* (stands for *RA*dio *IN*DEX). In it, my eye fell on one item sent in by a reader that KNHI, Alcatraz Island, tests every morning on 2160 kc with the U. S. Coast Guard! Verification was signed by the Warden. Apparently it was easier to get a QSL card out of Alcatraz than a weekend pass.

The next box held some early handbooks, some pamphlets by James Millen and some by Frank Jones. I couldn't help myself: I forgot the paint brush, lit up my pipe, sat down on the floor, and, as I leafed through these old treasures, returned to my boyhood . . .

In skimming through the old



Hallicrafters Sky Buddy receiver from about 1940. This receiver had no rf amplifier, only one stage of i-f, a built-in speaker, and electrical bandspread, but for \$29.50 it was a lot of radio. As a junior high school student K4KJ worked in the school cafeteria almost a full semester to buy one! (photo by K4KJ).

magazines, I gleaned several bits of miscellaneous information that in my 37 years in radio I hadn't known before. I feel the urge to pass these on to the unwary in the form of questions, lest this information become lost to posterity forever.

1. In the late 1920s and early 1930s the National Company made a couple of models of receivers called the MB-29 and the MB-30. What does "MB" stand for?

2. Over the years Hammarlund manufactured a series of receivers known as the HQ-120, HQ-129, HQ-170, HQ-180, etc. What does "HQ" stand for?

3. What is the difference between a heterodyne type receiver and a superheterodyne type receiver? Hint: What is the difference between an autodyne and heterodyne type receiver?

Watch for the answers to these important questions which I will try to work in during the course of the article.

## Authors

I was interested to read the tables of contents of these magazines and note the authors: names like W. W. Smith, Ray Dawley, and Frank Jones; John Kraus, also Faust Gonsett (later shortened to

"Gonset"), Herb Becker; E. H. Conklin who, with his wife, Josephine, always seemed to be going somewhere; Charles Perrine, John Griggs, Dawkins Espey, J. N. A. Hawkins (who also wrote as "Jayenay"), and Clayton Bane, F. D. Wells, Robert Kruse, Boyd Phelps, McMurdo Silver, George Grammer, James Lamb, Don Mix, John Reinartz, and Byron Goodman — all these names and many more.

I can't resist philosophizing a little about these names. The tremendous expansion in electronics in the last 30 years or so really began with the intensive use of electronics during World War II. Outside of the telephone and broadcasting

industries, there were very few people trained in electronics except for Amateur Radio operators; and most Amateurs, in those days, learned their electronics by reading these authors. I believe that the electronics industry today owes a lot more to these men than it can ever repay . . . or is even aware of.

In the Small World Department, while this is being written, the May, 1976, issue of *ham radio* arrived with an article by the same E. H. Conklin in which he makes a very flattering comment about a previous article I had written. I can't help but return the compliment, for Conklin's article proves that the early radio writers can also compete in today's market place. They certainly have a wealth of background that would be helpful to the modern generation.

One of the most prolific technical writers of the time was Frank Jones. The earliest article of his of which I am aware appeared in the May, 1929, *Radio* on "Detector Circuit Design Problems," although it may not have been his first article. I visited Frank two or three years ago, and he took me out to his radio room. What a sight! I wish my wife could have seen it; she would appreciate my own modest



Hallicrafters Sky Rider Defiant was also known as the SX-24. It had one rf stage, two i-f stages, a crystal filter, S-meter, and sold for \$69.50 (plus external speaker). One of the features of the receiver was its *Frequency Meter Tuning* system — when the main tuning dial was set to an appropriate index, the bandspread dial was accurately calibrated and could be used as a frequency meter. K4KJ claims that the one he owned was "dead accurate" (photo by K4KJ).

shack. It was a homebrewer's delight. Outside of some commercial test equipment, *everything* was homemade! Gear was spread over the operating table, over a side table, and up the walls. Frank had to rearrange a lot of stuff just to find me an empty chair. I think it should be preserved in its present state in some radio museum. No hurry, though, Frank!

Interestingly, much of his equipment appeared to be transistorized. Apparently, Frank is one of the few oldtimers who has made the transition from vacuum tubes to solid state. I hope we will have some more articles from him, soon.

### Goodies For Sale

After reviewing the tables of contents, I moved into an easy chair and turned to the advertisements . . . which proved equally fascinating. The first ad to catch my eye was a small two-inch ad in, the May, 1934 QST that announced that one Robert Henry, W9ARA, of Butler, Missouri, a graduate of the Massachusetts Institute of Technology in electrical engineering, offers to sell the latest factory-made short-wave receivers — on easy terms, too. He was doing business as Henry's Radio Shop then.

I often wondered how a graduate in electrical engineering from MIT could find happiness selling short-wave receivers by mail order on easy terms from a small town in western Missouri. I hope he did, for he's been doing it now for over 40 years, and doing very well at it. In May, 1935, Bob advertised the new Hallicrafters S-9 receiver, which tuned from 550 to 18,000 kcs (they didn't use Hz in those days). It featured a built-in speaker and nine all-metal tubes, the latest thing, then, in the tube business. It was only \$69.50 on easy terms. If you have any left, Bob, I'll pay the full cash price, and not trade-in either!

Another ad that caught my

## YOU CAN BUY *with* DOUBLE ASSURANCE

from

*Bob Henry*

*First with assurance before you buy that you will be satisfied. You need send but a \$5.00 deposit to Bob Henry and any receiver will be shipped to you on 10 day trial. Your \$5.00 deposit will be refunded if you return the receiver.*

*Second with assurance that after you buy you will be kept satisfied. Bob Henry stands back of every receiver. Bob Henry guarantees to service every new set he sells for a year with no cost to you except for parts and transportation. The new receiver will be shipped promptly from the factory or from Henry Radio Shop as you prefer. It will be shipped in factory sealed carton or if you wish Bob Henry will test and OK it before shipment to you.*



Bob, W9ARA, tries out a New 1938 SUPER SKYRIDER

Bob Henry must be as good an operator as he is a businessman — he won the DX phone contest in 1937. This photograph was featured extensively in Hallicrafters advertising for their 1938 Super Skyriders in late 1937.

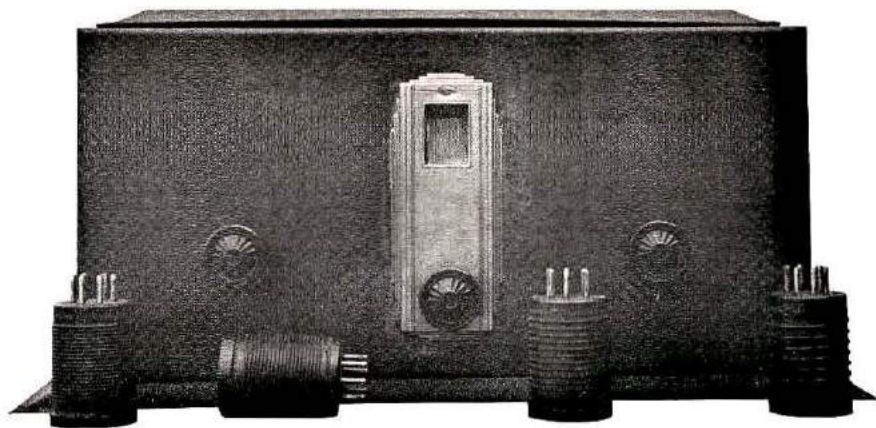
eye was by Bill Harrison, W2AVA, in the December, 1935, issue of *Radio*. Bill was offering genuine Western Electric 211Ds for \$4.90 (regular price, \$17.50) brand new. How many amateurs today use Western Electric tubes in their transmitters? How many even know what a 211D is? If you have any left, Bill, I'll bet you can sell them to the collectors without any trouble at all.

I always enjoyed visiting Harrison Radio, both before the war as a boy and also later on during my annual pilgrimage to New York for the IRE Convention in March. Harrison always had the largest displays of secondhand equipment I have ever seen. It would take me the best part of an hour just to twist all the knobs. That stuff would go like hot cakes at an Antique Wireless Association convention today.

Thinking of Bill Harrison brings back other pleasant memories, too. His old store on West Broadway was just a few

blocks from that "radio heaven" known as Cortlandt Street. On school holidays I would take the Liberty Street ferry from New Jersey, walk down a block, and then work my way up the east side of Heaven, visiting the stores one by one. By the time I got to the end of radio row, I was usually broke; so I would continue on up to Broadway where my father had his office. I could generally talk the OM out of an advance on the next lawn mowing or car washing job. Then I'd proceed down the west side of Heaven.

Cortlandt Street radio stores were real radio stores, too. A big pile of odds and ends in front of a store advertised as "Today's Special," had probably been Today's Special for the last six months. Some of it looked as if it was also Tonight's Special; (they didn't bother to take it in at night either). Often there'd be several bushel baskets of old glass-type tubes piled in front,



The National SW-5 was one of the first ac powered all-band shortwave receivers. It preceded the famous SW-3 and was designed for shortwave listening, which was very popular in the early 1930s. The SW-5 used plug-in coils and required an external power supply and loudspeaker; the receiver had one stage of rf amplification, a regenerative detector, and three stages of audio with a push-pull output stage to drive the loudspeaker (photo by K4KJ).

"Guaranteed to light, 5 cents each." No guarantee on the emission capabilities; just guaranteed to light. You wouldn't have to look very far to find the tube type you needed; the older the type, the easier it was to find. I could really use a store like that today: I'm trying to restore an old National AGS and am having trouble with numbers like 35, 37 and 89 . . . among others.

Inside the store there was inevitably a bargain table right by the front door; around the walls, and in the back of the store, the stuff was piled to the ceiling. There were some stores where it was handy to bring a flashlight. The wooden floor creaked and groaned when you walked, and they hadn't been swept in months, or maybe even years. Dust was everywhere, but you could usually find whatever you wanted, old or new; and that's a lot more than you can do today. I wonder if any of those stores relocated, and if so, where?

Some stores were at the tops of stairs one flight up. In many cases the light bulb at the head of the stairs was burned out, so the stairs were dark as well as creaking and rickety. I doubt that I could have gotten my mother inside some of those places, and I think if she had

seen them, she might not have been so willing to let me visit them either.

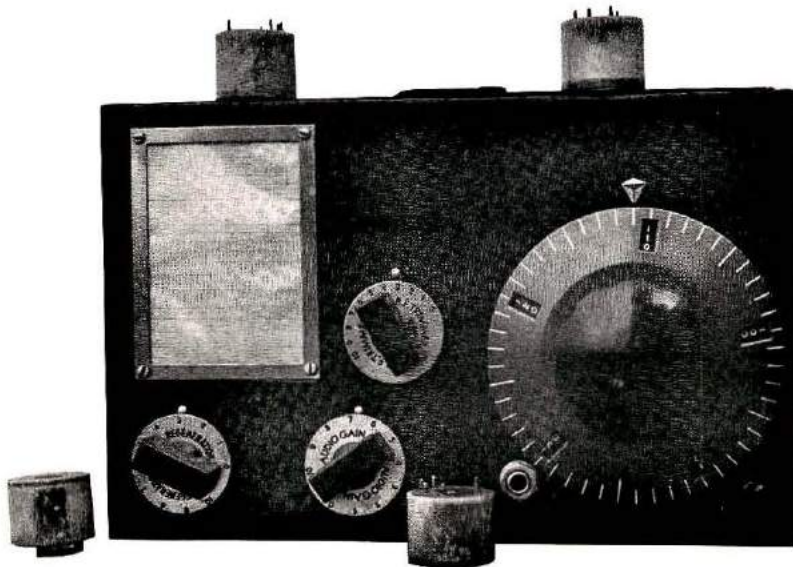
In spite of the appearance of the stores, or whether they were one flight up or down, you could generally count on a friendly greeting once you got inside. The clerk, who was usually the owner, would say, "Look around, and if you don't see what you want, call me." And then he'd go about his business leaving you to browse. I had the contents of

some of the smaller shops memorized and could almost always spot when he had sold something or, perish forbid, gotten in something new.

### Theory and Practice

The technical articles of those times are absorbing, too. In late 1933 and early 1934, *R/9* ran a three-part series on single sideband transmission by Robert M. Moore. The series concludes with a schematic diagram of a rig that tunes 3900-4000 kHz. Moore's rig is almost identical in block diagram-form to that of A. H. Nichols in the January 1948 *QST* at the start of the current sideband activity. Moore uses translation frequencies of 10 kHz, 200 kHz, and 4150 kHz to reach 75 meters. Nichols used 9 kHz, 550 kHz, and 13.665 MHz to reach 20 meters. Both were filter-type rigs with the carrier filter in the high audio region. Moore used type 56 tubes with a 210 output stage; Nichols used mostly 6SN7s with an 807 output stage.

Looking back, I am sorry that ssb was not pushed harder at the time, but a start was made. James Lamb, then Technical



The National 1-10 was introduced in 1936 and was so named because it tuned from 1 to 10 meters (30 to 300 MHz) — this was quite a feat in those days. Note the short pins on the plug-in coils. K4KJ used this receiver in his War Emergency Radio Station (WERS) on the old 2½-meter amateur band during World War II, and reports he had "one of the hottest receivers on the net." This set had an rf amplifier stage followed by a superregenerative detector (both using acorn tubes), and two stages of audio; the set required an external power supply and speaker (photo by K4KJ).

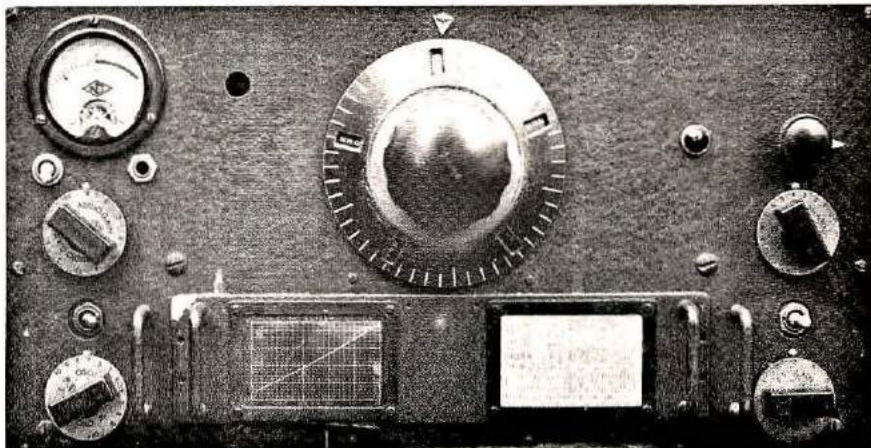
Editor of *QST*, started what was to have been a series of articles of SSB, but only the first saw the light of day. This article appeared in the October, 1935, issue of *QST*, but was not listed in the magazine index or in the annual index either, so you just have to know where to look (try page 33).

An editorial preface to Lamb's article says, in part, that in 1933 the ARRL Board of Directors instructed the technical staff to investigate the feasibility of single-sideband "carrierless" phone transmission on amateur frequencies. Accordingly, J. J. Lamb investigated both the theoretical and practical aspects and a report was rendered to the Board in 1934. Lamb's October, 1935, article and the articles that were expected to follow were taken from that report. Unfortunately, no articles followed. The October article is mostly an introductory type article. One of his concluding comments was especially interesting.

In explaining the difference between what is now known as ssb and dsb, he states that "With the carrier suppressed and both sidebands transmitted, it is practically impossible to supply a locally generated replacement carrier in the precise phase relationship needed for undistorted reception. For this reason (dsb) is hardly practicable." This information did not appear in *QST* nor the prestigious *Proceedings of the IRE* until the early 1950s, nearly 20 years later.

Lamb also designed an ssb transceiver using an improvement of his original crystal filter and incorporating a crystal oscillator-frequency multiplier chain which provided not only the transmitting carrier but also the receiver heterodyne frequencies from the same source. Remember, this was back in 1935, but it sounds like what is common practice today.

It's fascinating, too, to follow



An early National HRO receiver. A previous owner cut a hole in the front panel which considerably reduces its value to collectors of old radio sets (photo by K4KJ).

the development of the single-signal super-heterodyne receiver through James Lamb's articles in *QST*, including the development of the crystal filter and the noise limiter; in fact, several forms of the noise limiter are described. The Dichart, as well as Lamb's, circuits, seem to be still in use today.

The electron-coupled oscillator (eco) and its offspring, the tri-tet oscillator, are both described in an article by Dow and several by Lamb. Both of these circuits were very popular up until the development of transistors.

Speaking of transistors, I'll bet you thought they were a recent development. In the July, 1925, (that's right, 1925) *QST*, an "oscillating crystal" (galena type) is described. That was over 50 years ago. Today the oscillating crystal would be called a point-contact transistor.

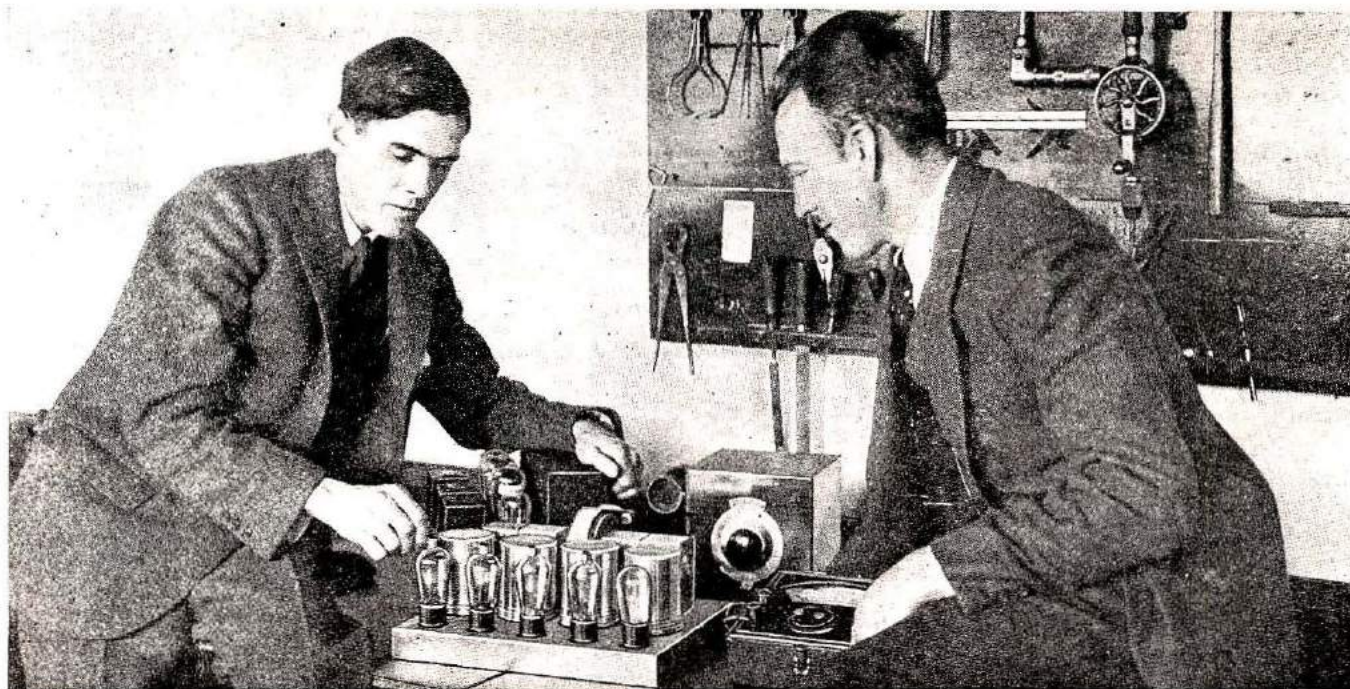
Aside from historical interest, many of the early articles have a lot of good, useful technical information that has fallen down through the cracks. Windom's article in the September, 1929, *QST*, describing the single-wire feeder system that bears his name, explains how to adjust the antenna. This information has not appeared in any handbook or antenna manual since that time, to the best of my knowledge. The procedure

is simple and straightforward and required only two rf ammeters. The charts and graphs that are in the books now are fine for a first approximation, but Windom's procedure must be used if a really good match is desired. A companion article in *The Proceedings of the IRE*, by Windom's associates, gives more detail on why the antenna works.

As another example, we think of the balun for coupling a balanced antenna to an unbalanced transmission line as a relatively new device. *Radio* for December, 1933, describes a "shielded transformer" to do the same thing. Furthermore, the 1933 article describes some of the problems that one runs into in using such a device; problems that have been generally ignored by all of the recent writers on the subject.

### Engineering Practice

Beginning in *QST* for March, 1934, and continuing well into the 1960s, the National Company ran what was probably the most useful and successful series of advertisements in the history of radio publishing. These were one-page articles appearing as the first advertising page in *QST* and were usually written by James Millen (until he left National to form his own company). When I first began



James Millen (left) and Dr. Glenn Browning (right) look over the National Velvetone-29, a five-tube ac screen grid tuner with exceptional signal reception for its day. It was designed for operation with the Velvetone amplifier, the latest thing in high fidelity for 1929. Dr. Browning, who was co-inventor of the famous Browning-Drake circuit used in amateur receivers in the 1920s, went on to form his own company which still manufactures CB equipment. James Millen also formed his own company, and Millen capacitors, inductors, and precision mechanical parts are still used by amateurs who want the very best in their homebrew equipment (*photo courtesy National Radio*).

reading these ads as a boy, I was impressed by the good tips they gave on design problems of a modern receiver and on how to make things work better. As I reread them years later through the eyes of a professional engineer, I find they contain much more than hot tips: they also exemplify an engineering philosophy that is sorely lacking in many of the electronic products on today's market, for professional and consumers as well as amateurs, namely, attention to engineering detail throughout the product. How many times have you bought a product which has a good basic design, but was sloppily assembled? Or assembled using cheap and underrated components? Or how many times have you found a product that is well fabricated, but with sloppy design engineering?

I have long felt that one of the finest examples of attention to engineering detail was the HRO receiver, which appeared first in 1934 and

stayed on the market with the same basic design well into the 1960s, almost 30 years. When it was taken off the market, it was not so much due to technical obsolescence, but to those damnable plug-in coils. Storing the coil set I *am* using isn't any problem because it goes in the receiver, but I have never yet found any good way to store the coil sets I *am not* using. In a field that changes as rapidly as electronics, a design that is accepted by the market place for almost 30 years is truly a good basic design. I have tried to use Millen's "attention to engineering detail" in my own designs, but will probably never be as successful as he was.

A pair of National receivers that were very popular in their day were the MB-29 and MB-30. The MB presumably stands for Millen/Browning. Glenn H. Browning later established Browning Laboratories and made amateur and commercial equipment until relatively recent times.

### Early TV

Numerous articles on television appeared in early radio magazines. *Radio News*, in May, 1931, published a list of ten active TV stations along with the number of holes, revolutions of their disks, and their frequencies which were around the present 160 meter band. That's right: mechanical scanning. One of the stations ran 5 kW; a minor headline under the list was: "Television Programs Improving." That was 35 years ago, but you would never know it today!

All-electronic TV systems were also in evidence. One of QST's most popular technical editors, Ross Hull, was accidentally electrocuted while experimenting with amateur TV in the middle 1930s. In 1940 QST published a three-article series describing a camera chain, TV transmitter and a receiver for the 2½-meter band. Amateur TV is just now catching on. Today we have slow-scan television in the hf ham bands. A fast-scan TV

repeater is operating in the Washington, D.C. area on the 450-MHz band.

### People

It is interesting, too, to go back and read the early work of some of the people who have become common names in the ham magazines. One always associates longtime *QST* assistant technical editor, Byron Goodman, with ARRL. However, in the February, 1935, *Radio* he wrote the lead article

recognizing them even if they hadn't been signed.

I also suspect that Gil was the originator of the Hashafisti Scratchi cartoon caricature that still appears on and off in *CQ* magazine. Most old-timers remember Scratchi as that mischievous ham from Osockme, Japan. In the 1934 *Radio*, the first drawing of Scratchi appears, which is the same as, but with much more detail than, the present *CQ* cut. (Or maybe *CQ*'s cut is worn out

running newsletter. If true, it is certainly a tribute to Gil's ability to have a symbol still in use after 40 years.

Speaking of Scratchi, do you realize how far back this magazine feature goes? Scratchi has been published on and off in *CQ* since its inception in 1945, and prior to that in *Radio*. Actually Scratchi goes back to at least April, 1922, when "Scratchi Starts Business Career" by David P. Gibbons appeared in *Radio*. I don't know if even this was the first Scratchi or not, but it's the earliest of which I have a record.

The October, 1933, *Radio* has a letter from Osockme, Japan, after a 10-year absence, and promises a letter every month from then on, but gives no indication of the author. April, 1934, *Radio* has a photograph of a person identified as the originator of Scratchi, but gives no name. A box of "assorted Japanese wavelengths" is offered to anyone who can identify him; it says that he started in radio 20 years ago (20 years before 1934, that is).

At the 1975 ARRL Convention at Reston, Virginia, I asked *CQ*'s editor, "Who is writing Scratchi these days?" He changed the subject, and in a way I'm glad he did. It's much more fun to imagine that on the first of each month a special messenger from the Japanese Embassy appears at *CQ*'s editorial office with the latest missive which had just arrived in the diplomatic pouch from Osockme.

I would like to know about Scratchi's early heritage, though, say, prior to World War II. It would also be interesting to learn what happened to David Gibbons, who, I assume, created Scratchi, to the best of my knowledge, the oldest feature in any amateur magazine.

### Receivers

The multitude and variety of equipment that was advertised in those old mags was equally



on "The Noise-Free Autodyne." In *Radio*? How could you, Byron?

Another person usually thought of as an ARRL stalwart is the late Phil Gildersleeve, whose cartoons were enjoyed by the amateur community for so many years. "Gil's" cartoons are always associated with *QST*, but the December, 1934, *Radio* has three "Gil" cartoons. Gil had not yet fully developed the quiet, subtle humor that made his "Jeeves" monthly cartoons and his annual Podunk Hollow ARC Field Day *QST* covers such classics, but the lines and style are definitely "Gilean"; you wouldn't have any trouble

after all these years.) The early cut is signed with what appears to be Gil's "signature." The cut was obviously reduced from a much larger original, so I can't be sure and don't want to stick my neck out too far.

However, as I mentioned before, Gil did draw for *Radio* at about that time, and even under a magnifying glass the signature appears to have the same form as Gil's. I don't know when the cut was first used as my collection of *Radio* is not very complete prior to 1934 and I imagine the original drawing is long gone, too! It would be ironic if ARRL's most famous cartoonist originated the trademark for *CQ*'s longest



Rare Hallicrafters Skyrider Diversity receiver, which was marketed in the middle of the depression with a price tag of \$425 — about six months pay for those who were employed. Only about a dozen of these sets were made. The receiver is about 3 feet (1 meter) long. In spite of its impressive size two additional chassis were used which were installed on either side of the receiver (photo by K4KJ).

absorbing — receivers, transmitters, antennas, accessories. At the top of the list were the dream receivers, the Hammarlund Super-Pro and the National HRO, probably the two most wanted receivers of the day. Incidentally, "HQ" stands for "Hi Q," an early trade name used by Hammarlund.

In the affordable price range, the receiver that caught my fancy was the RME 69 or 70. For some reason RME did not put labels on the knobs, so you just had to know what knob did what. As a young teenager, I was very impressed watching a skilled, experienced operator handle a 69 or 70. He would tune in a signal, then tweak a knob here and twiddle another there to make a cluttered signal R-9 just by knowing how, while I couldn't even turn on the ac power without assistance.

In addition to the 69/70, RME made a preselector, the DB-20, available as a separate item. They also made a combined preselector/receiver combination available as a single item. This model, I think, impressed me as a teenager the most. It had more dials and knobs than any other amateur model. I have had my eye open for one since boyhood, but have never seen one. I'm beginning to

wonder if they existed only in the ads.

Of all the receivers, commercial or homemade, past, present, and probably future, the most impressive one of all must be the Hallicrafters Skyrider Diversity (Model DD-1). It looked like a real piece of equipment, for sheer size if nothing else. If you could tune in a signal with one, any layman could not help but be impressed by your skill as a radio operator.

I'll never forget when that receiver hit the street either. Hallicrafters took a two-page spread in QST; and it took two pages, too, in order to do justice to the thing. They sure don't build them like that any more, and it's probably just as well: the way they build houses today, the average ham wouldn't have room to keep one. On the other hand, an advantage of today's society is that there are usually one or two pick-up trucks in every neighborhood, so you wouldn't have too much trouble moving one — if you ever had to. This is another item I wonder if they really made, for I have never actually seen one, nor have I ever talked to anyone who has ever seen one.

By way of transmitters,

National sold a rack and panel job; 600 watts, a-m or CW, in an open rack at that. There was no TVI to worry about. The model owned by a local amateur used Taylor TW-150's in the final. Remember those bottles? TW stood for "thin wall." Hallicrafters made the HT-4 for ham use. This equipment did yeoman duty in World War II as the BC-610. Either of those two transmitters was acceptable in my boyhood dreams: I wasn't prejudiced in my youth and would have been happy to have one of each!

For antennas you could have a Mims Signal Squirter on ten or twenty, or both, which was the first commercially available Yagi beam. It featured inductive coupling between feed line and antenna, for continuous rotation in either direction without slip rings, which you don't see any more. I believe the Mims name, trade mark and patents were bought out by Amphenol, but I have never seen them push the product. I don't know what happened, but they certainly had the jump on Telrex.

For the lower frequency bands, you could use EO-1 cable. This was a rubber-insulated 72-ohm impedance balanced line for direct

connection to the antenna. It worked fine in dry weather, but was a dead short after a rain storm. I still have a length of it around someplace for old times' sake. If you wanted all-weather operation, there were Johnson Q-bars to match a 72-ohm antenna to 600-ohm open wire line. Or, why bother to match anyway? Coaxial line was only used by the higher class stations on 5 or 2½ meters, and was always homemade. It was made from copper water pipe; plastic beads, made by Amphenol, separated the inner conductor from the pipe. Since the line was mostly air-insulated, the losses were lower than the commercial flexible cable available today.

October, 1939, *Radio* has an article by F. R. Gonsett entitled "Ten-Meter Auto-Radio Converter." Except for the tube type, this converter appears almost identical to the famous Gonsett Converters of the late 1940s that helped establish mobile operation as a viable means of hamming. An earlier article by Gonsett in October, 1938, *Radio* discusses mobile radio equipment in the 30-41 MHz band. These articles may have laid the ground work for the contribution Gonsett made to mobile communication following World War II.

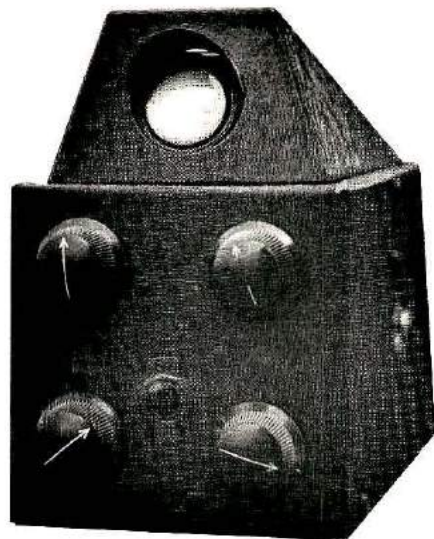
For operating accessories, my dream station included an Edwin Guthman direct reading frequency meter, a Triplett

model 1639 modulator monitor and a National 1- or 3-inch cathode-ray modulation monitor. After about 1932, you were expected to know what frequency you were on, and after about 1936, your modulation percentage, too.

Here's the answer to my final question: A heterodyne receiver has a separate local oscillator and mixer, as does a super heterodyne, but the output frequency of the mixer is in the audio range for the heterodyne receiver. In a super heterodyne receiver the output frequency of the mixer is at a *supersonic* frequency, usually called "the intermediate frequency."

An interesting series of three articles began in the January, 1935, *Radio* on "How Telegraphers are Made" by Ted McElroy, who at the time was the "world's fastest telegrapher." McElroy gives tips on sending and receiving and on how to run a code speed contest, well worth reading today. His comments on operating conditions at the time would be of interest to the history buffs and maybe to *Playboy* as well. The articles are very interestingly written, for his sense of humor is as good as his ear drums and fist.

While on the subject of code, Walter H. Candler has an article on "Code Technique" in the March, 1934, *R/9* and another in September, 1934. As I recall, the Candler System was still advertising in *QST* up until recently, so he must have had



National 1-inch oscilloscope from the late 1930s. After about 1936 all amateurs were expected to know their modulation percentage. The National CRO used a 913 cathode-ray tube; a trapezoidal pattern was normally used because no linear sweep was provided (photo by K4KJ).

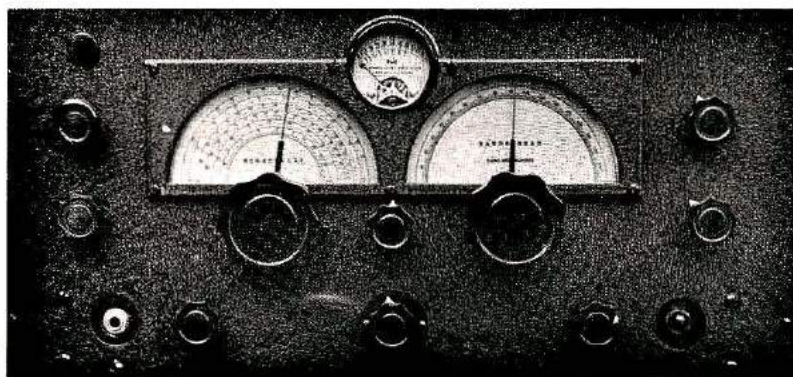
some good advice. Good CW men (and women) seem to be becoming a thing of the past, so that I think his article would be useful reading today.

In the midst of my reverie, the XYL walked in and looked. She didn't say anything, she just looked. Sitting in the easy chair with magazines scattered all around me, while the paint brush had hardened and the paint can had been pushed back in the corner, I had been all too quiet.

From the dreams of my boyhood, a jolt to the realities of the present. Our youngest offspring is bringing her fiancé home from college next weekend, so it's back to the woodwork.

The Lamb single-signal supers, the Jones 5-meter transmitters, the Nationals, the Hallicrafters and RMEs, all fade away into the background like DX stations on 20 meters. Never to be built, many of them, but never to be forgotten either. The schematics, the tube lineups, the panel layouts, even the parts lists are as indelibly impressed in my memory as they are on the pages of . . . those old radio mags . . .

HRH



The Radio Manufacturing Engineers' RME-69 was a favorite with many amateurs in the late 1930s. Notice that there are no labels on any of the controls — the operator just had to know which ones were which. Accessories which were available for the RME-69 included a high-frequency preselector and a tunable vhf converter. Amateurs with that lineup on their table had a very impressive looking station (photo by K4KJ).